Write your name here

Surname	Other names

Edexcel GCSE

Centre Number	Candidate Number

Mathematics B

Unit 2: Number, Algebra, Geometry 1 (Non-Calculator)

Foundation Tier

Tuesday 21 June 2011 – Morning
Time: 1 hour 15 minutes

Paper Reference
5MB2F/01

You must have:
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser. Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- **Calculators must not be used.**



Information

- The total mark for this paper is 60.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
  – *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

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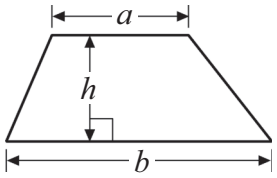
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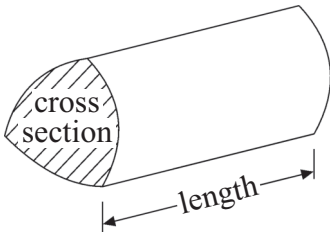
Formulae: Foundation Tier

You must not write on this formulae page.
Anything you write on this formulae page will gain NO credit.

Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of prism = area of cross section × length



Answer ALL questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator.

1 (a) Write the following numbers in order of size.
Start with the smallest number.

5 17 2 25 8

.....

(1)

(b) Write the following numbers in order of size.
Start with the smallest number.

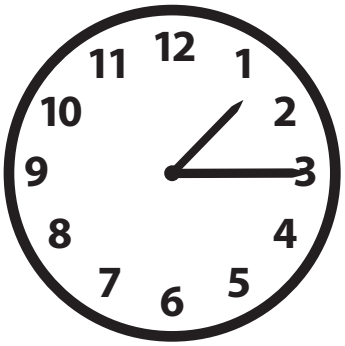
–3 0 6 –10 –7

.....

(1)

(Total for Question 1 is 2 marks)

2

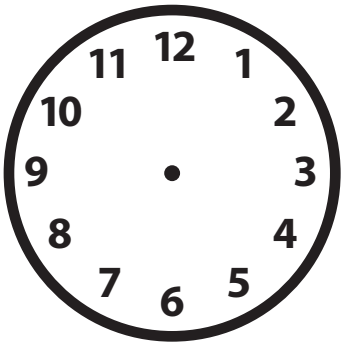


(a) What time does the clock show?

.....

(1)

(b) On the clock below, show the time half past two.



(1)

Claire leaves home at 3.30pm.
She arrives at the station at 4.20pm.

(c) How long did her journey from home to the station take?

..... minutes

(2)

(Total for Question 2 is 4 marks)

3 The table shows some temperatures at midnight in Canada.

Town	Temperature at midnight
Banff	2°C
Norquay	–4°C
Revelstoke	–6°C
Calgary	5°C

(a) What is the difference in temperatures

(i) between Norquay and Revelstoke,

..... °C

(ii) between Calgary and Revelstoke?

..... °C

(2)

In Revelstoke, the temperature drops by 11°C from midnight to 6am.

(b) What is the temperature in Revelstoke at 6am?

..... °C

(1)

(Total for Question 3 is 3 marks)

4 (a) Simplify $d + d + d + d$

.....

(1)

(b) Simplify $3f + 4 - 2f + 6$

.....

(2)

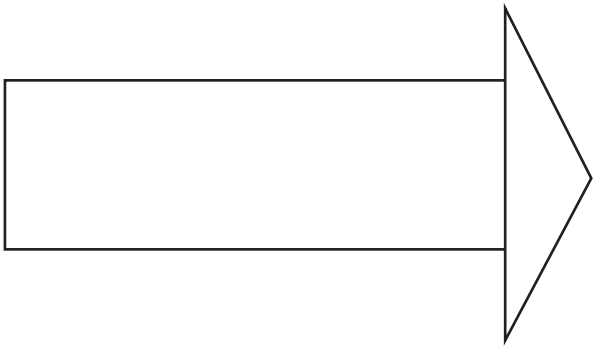
(Total for Question 4 is 3 marks)

5 Draw accurately a circle of radius 5 cm.
Use the cross (×) as the centre of your circle.

×

(Total for Question 5 is 2 marks)

6 The shape below is made from a rectangle and a triangle.



(a) Mark with arrows (>>) a pair of parallel lines.

(1)

(b) Mark with the letter A an acute angle.

(1)

(Total for Question 6 is 2 marks)

7 A ticket for a football match costs £38
Ahmed has £120
He buys as many tickets as possible.

(a) How many tickets does he buy?

.....

(2)

(b) How much money has he got left?

£ .....

(1)

(Total for Question 7 is 3 marks)

8 Here is a list of numbers.

2 3 10 12 15 16 24

From the list write down

(a) an odd number

.....

(1)

(b) a multiple of 6

.....

(1)

(c) a factor of 18

.....

(1)

(Total for Question 8 is 3 marks)

---

9 (a) Write $\frac{1}{4}$ as a decimal.

.....

(1)

(b) Write 0.8 as a percentage.

..... %

(1)

(c) Write the ratio 2 : 6 in its simplest form.

.....

(1)

(Total for Question 9 is 3 marks)

---

10 (a)

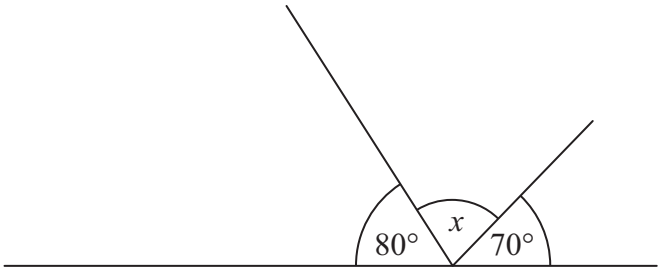


Diagram **NOT** accurately drawn

Work out the size of the angle marked x.

.....°

(2)

(b)

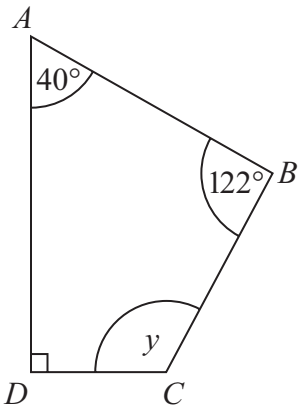


Diagram **NOT** accurately drawn

$ABCD$ is a quadrilateral.

Work out the size of the angle marked y.

.....°

(2)

(Total for Question 10 is 4 marks)

11 Here is a bill for a dishwasher repair.
Complete the bill.



Dishwasher Repair

Description	Number	Cost of each item	Total
Filter	1	£28.95	£28.95
Basket wheel	8	£1.50	£ .....
Spray arm	2	£	£20.90
Labour charge $1\frac{1}{2}$ hours at £18.00 an hour			£ .....
Total cost			£ .....

(Total for Question 11 is 4 marks)

12 Fran is decorating her bedroom.
She is going to put a border all around the bedroom.

This diagram shows a plan of the bedroom.

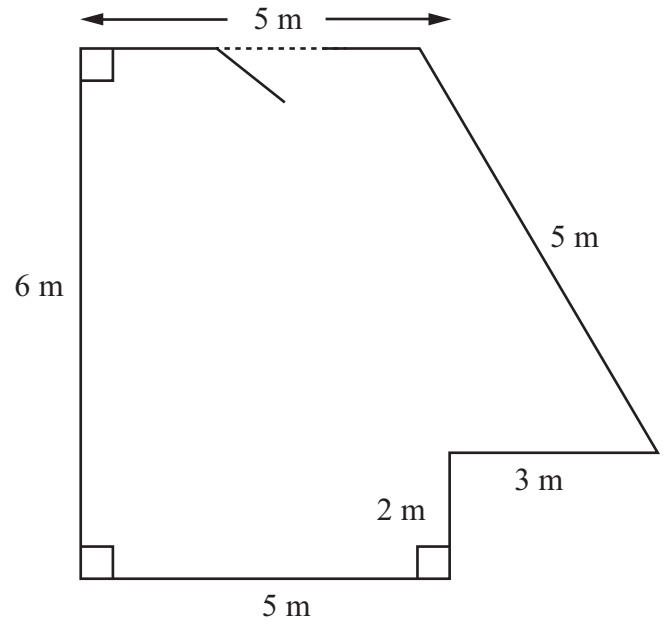


Diagram **NOT** accurately drawn

Border rolls are sold in 4 m lengths.
Work out the number of border rolls Fran will need to buy.

.....

(Total for Question 12 is 4 marks)

13 (a) Write down the value of 7^2

.....

(1)

(b) Write down the value of $\sqrt{25}$

.....

(1)

(c) Write down the value of 2^3

.....

(1)

(Total for Question 13 is 3 marks)

14 Here are the first four terms of a number sequence.

4 7 10 13

(a) (i) What is the next term in the sequence?

.....

(ii) Explain how you found your answer.

.....

(2)

(b) What is the 8th term in the sequence?

.....

(1)

Alexi says 34 is in the sequence.

(c) Is Alexi correct? .....

You must give a reason for your answer.

.....

(1)

(Total for Question 14 is 4 marks)

***15** The diagram shows the plan of the floor of Mrs Phillips' living room.

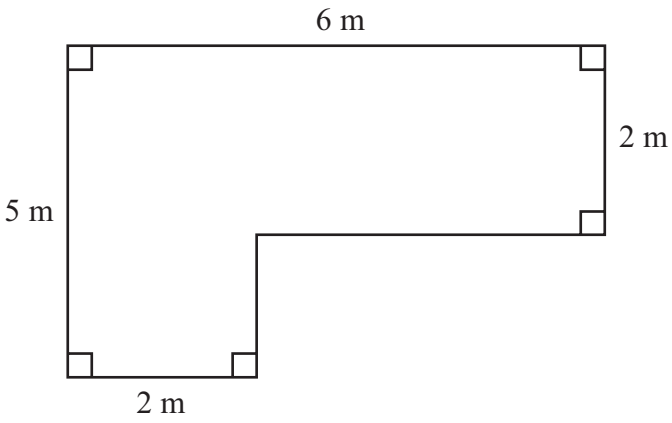


Diagram **NOT** accurately drawn

Mrs Phillips is going to cover the floor with floor boards.
One pack of floor boards will cover 2.5 m^2.

How many packs of floor boards does she need?
You must show your working.

(Total for Question 15 is 4 marks)

16 Buses to Exeter leave a bus station every 20 minutes.
Buses to Plymouth leave the bus station every 16 minutes.
A bus to Exeter and a bus to Plymouth both leave the bus station at 8am.

When will buses to Exeter and Plymouth next leave the bus station at the same time?

.....

(Total for Question 16 is 3 marks)

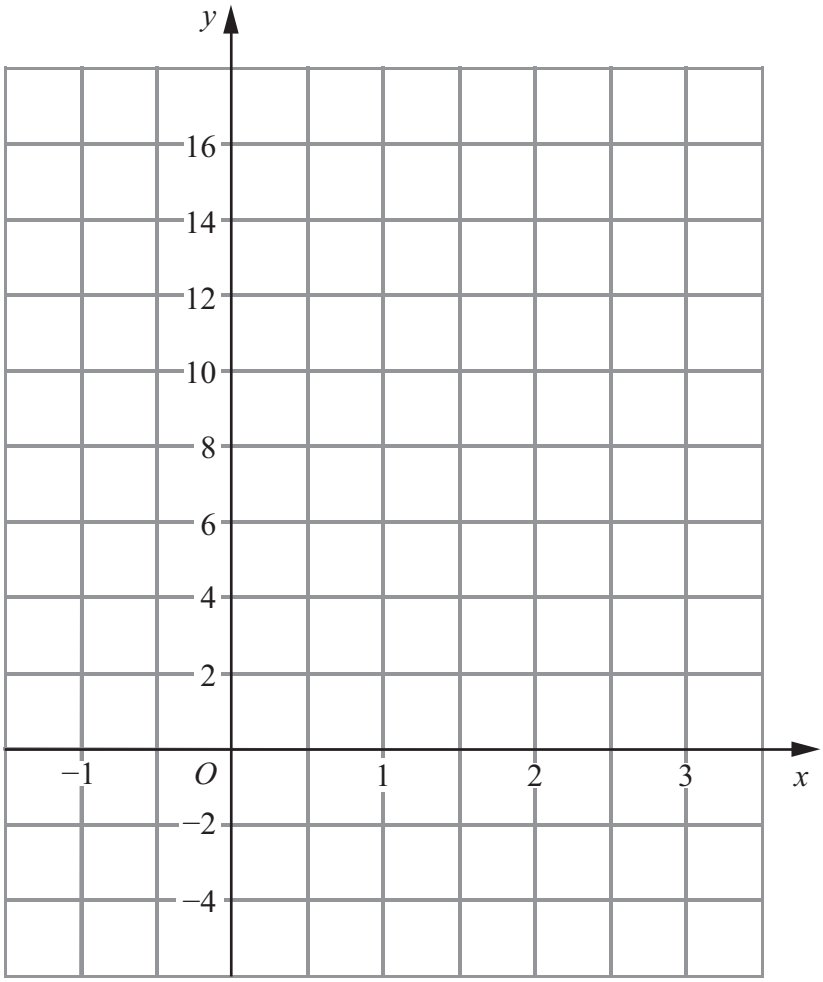
17 Given $x = 4$

Work out the value of $2x^2+7$

.....

(Total for Question 17 is 2 marks)

18 On the grid, draw the graph of $y = 4x + 2$ from $x = -1$ to $x = 3$



(Total for Question 18 is 3 marks)

***19** Mr Smith drives 24 miles to work.

On Monday his journey to work takes 30 minutes.
On Tuesday the average speed of his journey to work is 56 km/h.

Did Mr Smith drive more quickly to work on Monday or Tuesday?
You must show all your working.

(Total for Question 19 is 4 marks)

TOTAL FOR PAPER IS 60 MARKS